

CLAIMS

What is claimed

1. A power system for a marine vessel, the power system comprising:
 - a plurality of primary power sources;
 - a propulsion power distribution unit coupled to said plurality of primary power sources,
 - a plurality of propulsion devices coupled to said propulsion power distribution unit, said propulsion devices imparting motion to said vessel;
 - a weaponry power distribution unit coupled to said propulsion power distribution unit;
 - a plurality of directed energy weapons coupled to said weaponry power distribution unit.
2. The power system of claim 1 wherein:
 - said propulsion power distribution unit is a DC power distribution unit and includes two rails connected by a plurality of propulsion rungs.
3. The power system of claim 2 wherein:
 - each of said primary power sources is coupled to one of said plurality of propulsion rungs.

4. The power system of claim 2 wherein:

each of said primary power sources is coupled to each of said plurality of propulsion rungs through an AC-DC converter.

5. The power system of claim 2 wherein:

each of said plurality of propulsion rungs is coupled to a respective propulsion device.

6. The power system of claim 2 wherein:

said weaponry power distribution unit is a DC power distribution unit including two rails connected by a plurality of weaponry rungs.

7. The power system of claim 6 wherein:

each of said propulsion rungs is coupled to one of said plurality of weaponry rungs.

8. The power system of claim 7 wherein:

each of said propulsion rungs is coupled to one of said plurality of weaponry rungs through a DC-DC converter.

9. The power system of claim 6 wherein:

each of said plurality of weaponry rungs is coupled to a respective directed energy weapon.

10. The power system of claim 2 further comprising:

an auxiliary power distribution unit coupled to said propulsion power distribution unit.

11. The power system of claim 10 wherein:

said auxiliary power distribution unit is a DC power distribution unit including two rails connected by a plurality of auxiliary rungs.

12. The power system of claim 11 wherein:

each of said propulsion rungs is coupled to one of said plurality of auxiliary rungs.

13. The power system of claim 12 wherein:

each of said propulsion rungs is coupled to one of said plurality of auxiliary rungs through a DC-DC converter.

14. The power system of claim 11 wherein:

each of said plurality of auxiliary rungs is coupled to a respective auxiliary load.

15. The power system of claim 11 further comprising:

an ancillary power source coupled to at least one of said auxiliary rungs.

16. The power system of claim 15 wherein:
said ancillary power source is a flywheel.